

WHAT IS CLAIMED IS:

1-28 (Canceled)

29. (New) A mixing and distribution device for fixing paste, particularly for multicomponent bone cement, comprising a box-like body that forms internally a receptacle that is closed in an upper region by a detachable and substantially fluid-tight lid, inside which means for mixing the components of the fixing paste are accommodated, said mixing means being coupled to a piston that forms, inside said receptacle, a venting chamber toward said lid and a mixing chamber toward the bottom of said receptacle, said mixing chamber being connected to a channel for distributing bone cement, which is controlled by valve means, said venting chamber being instead connected to a venting channel, which can be functionally associated with suction means, said mixing means being constituted by longitudinally elongated mixing blades that are arranged so as to slide within complementary through slots formed in said piston, a rotation pivot being further locked coaxially on said piston and being arranged so that it can slide through a corresponding fluid-tight hole formed in said lid, said rotation pivot being associable with corresponding rotation means that can be operated by a user during the mixing of the multicomponent paste, said device further comprising a handgrip for a single hand of the user, with which means for the translational motion of said rotation pivot together with said piston toward the bottom of said receptacle are associated, said means being actuatable with the same hand associated with said handgrip, said venting and mixing chambers being mutually connected for the passage of gaseous fluids.

30. (New) The device of claim 29, wherein said handgrip is constituted by a pistol grip that is rigidly coupled to said lid.

31. (New) The device of claim 30, wherein said means for the translational motion of said rotation pivot comprise a ratchet mechanism that is constituted by a plurality of annular bulges that have a sawtooth transverse profile in which the teeth are inclined so as to converge toward

said lid, two complementarily shaped teeth engaging on said annular bulges and being arranged monolithically on the first end of a first-class lever, elastic return means being provided between the fulcrum and said second end of said lever and acting between said lever and said pistol grip.

5 32. (New) The device of claim 31, wherein said elastic return means comprise a leaf-spring element, which is elastically deformable and cantilevers out from said second end of said lever toward said first end.

10 33. (New) The device of claim 31, wherein a collar is present on said lid, said fluid-tight hole being formed coaxially to said collar, tabs for preventing reversibility of the translational motion of said pivot being provided on said collar, said tabs being elastically deformable and being provided with teeth that are shaped complementarily to said annular bulges of said pivot so as to prevent said pivot from rising accidentally.

15 34. (New) The device of claim 31, wherein a retention element is associated with said pivot and has a C-shaped part designed to be coupled reversibly by elastic deformation with an annular slot formed on said pivot at the beginning of said annular bulges, said retention element being coupled to said annular slot only during the mixing of the multicomponent paste.

20 35. (New) The device of claim 29, wherein the end of said mixing blades that is directed toward said lid has a head that is wider than the width of the complementary slots.

25 36. (New) The device of claim 29, wherein the coupling of said mixing blades to said slots has passages for the outflow of the air and gas from said mixing chamber toward said venting chamber.

37. (New) The device of claim 29, wherein the length of said mixing blades is substantially equal to the internal length of said receptacle.

38. (New) The device of claim 37, wherein means for detachable fixing to said box-like body protrude from the rim of said lid.

30 39. (New) The device of claim 38, wherein said fixing means are constituted by teeth of the snap-fit type, to be coupled by elastic

deformation within corresponding locking cavities formed through a perimetric tab that protrudes laterally from said cylindrical body.

40. (New) The device of claim 29, wherein said piston has a first cylindrical portion and a second portion that has a conical shape toward the
5 bottom of said receptacle.

41. (New) The device of claim 40, wherein the vertex region of said second conical portion has a coaxial protrusion that is substantially elongated downward.

42. (New) The device of claim 40, wherein circumferential pockets
10 are provided on said first cylindrical portion of said piston in order to accommodate corresponding scraper rings for the side wall of said receptacle or, as an alternative, sealing gaskets.

43. (New) The device of claim 40, wherein circumferential pockets for accommodating corresponding sealing gaskets are formed on said first
15 cylindrical portion of said piston.

44. (New) The device of claim 29, wherein locking means are provided which comprise a first shank formed at one end of the pivot, two studs protruding from the lateral surface of said first shank on opposite sides, a seat being formed axially in said piston and being shaped
20 complementarily to said first shank, openings that are complementary to said two studs being provided on the side walls of said first shank, the mutual coupling of said studs and said openings occurring by elastic deformation of the walls of said seat.

45. (New) The device of claim 44, wherein the free end of said pivot
25 is constituted by a second shank.

46. (New) The device of claim 45, wherein said rotation means are constituted by a crank that is coupled detachably to said second shank.

47. (New) The device of claim 45, wherein said rotation means are constituted by an electric motor or a pneumatic motor, a spindle for
30 coupling to said second shank being associable with said motors.

48. (New) The device of claim 44, wherein an annular pocket for

accommodating a corresponding gasket is formed proximate to said first shank.

49. (New) The device of claim 29, wherein said venting channel is constituted by a tube that protrudes from the upper portion of said lid.

5 50. (New) The device of claim 29, wherein said distribution channel protrudes from the bottom of said receptacle by way of a nozzle that is controlled by said valve means, which consist of a plug valve.

51. (New) The device of claim 29, comprising a stand in which it is possible to insert said box-like body temporarily, with its bottom directed
10 downward, in order to mix the multicomponent paste.

52. (New) The device of claim 39, comprising a collar-funnel to be arranged temporarily in abutment against said perimetric tab during the pouring of the components of the multicomponent paste.

53. (New) The device of claim 50, comprising an extension nozzle of
15 the syringe- needle type, to be coupled to the nozzle in order to precisely direct the paste during distribution on the parts to be fixed.

54. (New) The device of claim 29, wherein said device is entirely made of plastic material.

55. (New) The device of claim 31, wherein the fulcrum of said lever
20 is formed by a hinge constituted by a hole, which is formed in said pistol grip and in which there is a pivot that is rigidly coupled to said lever, said hole having an oval shape.

56. (New) The device of claim 55, wherein the major axis of said oval hole is substantially oriented along the extension of said pistol grip.